

(3) The audio output of the receiver must be at least 50 milliwatts at the rated load impedance;

(4) The receiver must be provided with an auto alarm device which mutes the receiver (silences the loudspeaker) unless the radiotelephone alarm signal or the signal preceeding a vital navigational warning is received. When the auto alarm is activated the receiver audio output level must be louder than the output level of the received speech signal. Additionally, the receiver must meet the following requirements:

(i) When the receiver is muted its audio output power must be less than 1 milliwatt;

(ii) If tone filters are used to process the 1300 Hz and 2200 Hz tones the tolerance of their center frequency must be  $\pm 1.5$  percent of the alerting frequency. The response must be flat within 6 dB to  $\pm 3\%$  of the center frequency of the filters; and

(iii) The receiver must not be unmuted by atmospherics or by strong signals other than the radiotelephone alarm and the vital navigational warning signal.

(5) The receiver must be unmuted within 4 to 6 seconds when a double sideband alarm signal modulated at 70% is applied at its input terminals at a level which produces a SINAD of 10 dB under the following conditions:

(i) For radiotelephone alarm the signal must be modulated sequentially by a  $1300 \pm 20$  Hz tone and a  $2200 \pm 35$  Hz tone. The duration of each tone must be  $250 \pm 50$  milliseconds and the period between each tone must not exceed 50 milliseconds; and

(ii) For navigational warning the signal must be modulated by a  $2200 \pm 35$  Hz tone and the modulated carrier must be turned "on" for  $250 \pm 50$  milliseconds and then "off" for  $250 \pm 50$  milliseconds.

(6) The receiver must not be unmuted when a double sideband signal of 70 dB above the receiver measured sensitivity, modulated at 70% by a  $2200 \pm 35$  Hz tone with the following durations is applied at its input terminals:

(i) "On" periods of less than 175 milliseconds or more than 325 milliseconds followed by "off" periods of any duration; and

(ii) "Off" periods of less than 175 milliseconds or more than 425 milliseconds

followed by "on" periods of any duration.

(7) The controls listed below must be provided on the exterior of the equipment:

(i) On/off switch with a visual indication that the device is on;

(ii) Volume control to adjust the audio output;

(iii) Control for dimming any light on the equipment;

(iv) Control for switching the auto alarm in and out of operation; and

(v) Control to manually reset the auto alarm to muted condition.

(8) The receiver must operate within specifications throughout the temperature range 0-50 degrees Celsius at relative humidities as high as 95%.

(9) The receiver must be capable of operating when subjected to vibrations having a frequency between 20 and 30 Hertz and an amplitude of 0.76 mm (0.03 inch) in a direction at an angle of 30 to 45 degrees with the base of the auto alarm.

[51 FR 31213, Sept. 2, 1986, as amended at 58 FR 44952, Aug. 25, 1993]

**§ 80.271 Technical requirements for portable survival craft radiotelephone transceivers.**

(a) Portable survival craft radiotelephone transceivers must comply with the following:

(1) The transceivers must receive and transmit either on 457.525 MHz or on 156.800 MHz;

(2) The receiver must comply with the requirements in part 15, subpart C of this chapter and must have a sensitivity of not more than 2 microvolts. The sensitivity requirement must be met using the receiver sensitivity measurement procedure specified in the Radio Technical Commission for Marine Services (RTCM) Special Committee No. 66 Report MMS-R2;

(3) The effective radiated power of the transmitter must be at least 0.1 watt;

(4) The transceivers must be battery powered and operate for at least four hours with a transmit to receive ratio of 1:9 with no significant adverse effect upon the performance of the device;

(5) The transceivers must have a permanently attached waterproof label with the statement "Complies with the

FCC requirements for survival craft two-way radiotelephone equipment”; and

(6) The antenna must be permanently attached to the device or its removal must require the use of a special tool.

(b) Portable radiotelephone transceivers that are already type accepted may be used to satisfy the survival craft radiotelephone requirement until October 1, 1993, provided the device meets the technical requirements in paragraphs (a)(1) through (3) of this section.

(c) Survival craft radiotelephone equipment installed after October 1, 1988, must be type accepted to meet the requirements of this section.

(d) After October 1, 1993, all portable radiotelephone transceivers that are used to satisfy the survival craft radiotelephone requirement must have been type accepted to meet the requirements of this section.

(e) Portable radiotelephone transceivers which are type accepted to meet the requirements of this section must be identified by an appropriate note in the Commission’s Radio Equipment List.

**§ 80.273 Technical requirements for radar equipment.**

The technical requirements for radar equipment are contained in § 80.825.

**Subpart G—Safety Watch Requirements and Procedures**

**COAST STATION SAFETY WATCHES**

**§ 80.301 Watch requirements.**

(a) Each public coast station operating on telegraphy frequencies in the band 405–535 kHz must maintain a watch for classes A1A, A2B and H2B emissions by a licensed radiotelegraph operator on the frequency 500 kHz for three minutes twice each hour, beginning at x h.15 and x h.45 Coordinated Universal Time (UTC).

(b) Each public coast station licensed to operate in the band 1605–3500 kHz must monitor such frequency(s) as are used for working or, at the licensee’s discretion, maintain a watch on 2182 kHz.

(c) Except for distress, urgency or safety messages, coast stations must

not transmit on 2182 kHz during the silence periods for three minutes twice each hour beginning at x h.00 and x h.30 Coordinated Universal Time (UTC).

(d) Each public coast station must provide assistance for distress communications when requested by the Coast Guard.

**§ 80.302 Notice of discontinuance, reduction, or impairment of service involving a distress watch.**

(a) When changes occur in the operation of a public coast station which include discontinuance, reduction or suspension of a watch required to be maintained on 500 kHz, 2182 kHz, or 156.800 MHz, notification must be made by the licensee to the nearest district office of the U.S. Coast Guard as soon as practicable. The notification must include the estimated or known resumption time of the watch.

(b) [Reserved]

**§ 80.303 Watch on 156.800 MHz (Channel 16).**

(a) During its hours of operation, each coast station operating in the 156–162 MHz band and serving rivers, bays and inland lakes except the Great Lakes, must maintain a safety watch on the frequency 156.800 MHz except when transmitting on 156.800 MHz.

(b) A coast station may be exempted from compliance with the watch requirement when Federal, State or Local Government stations maintain a watch on 156.800 MHz over 95% of the coast station’s service area. Requests for an exemption must include a chart showing the receiving service area of the inland water public coast station. The coordinates, to the nearest minute, and the receiving service area of the Government stations maintaining the continuous watch on 156.800 MHz must be indicated on the same chart. The service area of these stations must be calculated using criteria specified in subpart P of this part.

(c) If the government station(s) providing the 156.800 MHz watch over the service area of an exempt station temporarily discontinues that watch, the exempt coast station upon receiving notice of this condition must maintain the watch on 156.800 MHz during the discontinuance. Automated maritime